



NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1382

Ms. Kathleen Kilpatrick, SHPO
Department of Historic Resources
2801 Kensington Avenue
Richmond, VA 23221

MAR 16 2008

RE: Antenna Relocation as Part of Construction of Additional Administration and Parking Facilities at The Army National Guard Readiness Center, Arlington, VA – DHR Project # - 2007 1308

Dear Ms. Kerr,

Pursuant to the Base Realignment and Closure Act of 2005, the National Guard Bureau (NGB) proposes to build a supplemental administration facility, encompassing approximately 45,000 square feet, adjacent to the existing Army National Guard Headquarters building known as the Army National Guard Readiness Center (ANGRC), located at 111 South George Mason Drive, Arlington VA. The NGB began consultation with your office regarding this action in August 2007 under DHR Project Number 2007 1308. Since that time, it has been brought to the attention of the NGB Cultural Resources Team that construction of the new facilities, which was found to have no adverse effect, as defined in 36 CFR 800 Part 800.4(d)(1) to the adjacent Arlington Hall Station Historic District, will include the relocation of two antennas on the NGB property. This letter initiates NGB's consultation process with your office per the National Historic Preservation Act of 1966 and the implementing regulations set forth in 36 CFR 800 for the proposed relocation of antennas.

In order to provide enhanced security and emergency response coordination and support to the nation during disasters or conflict, the Army National Guard is currently operating a nation-wide high frequency (HF) radio system. This was mandated by and is supported by the highest levels of the government and the Department of Defense. This network of radio stations across America will help us to respond in the event of failure of the telecommunication infrastructure due to natural or hostile causes. Due to this new facility construction project on the existing site, two existing antennas will be relocated to new locations within ARNGRC campus.

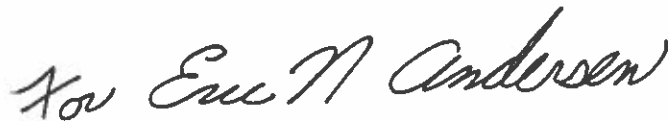
In order to communicate effectively in the appropriate network, good quality antennas are maintained for supporting daily operations. For short to medium range, a smaller antenna is acceptable and installed on the west wing penthouse. For more distant stations (Hawaii, Guam, & Alaska), an antenna with gain (larger antenna) is required. Such an antenna (*called a log periodic*) can make both transmitted and received signals from distant stations appear to be more than ten times stronger by focusing its response in

one direction. Such a log periodic is required for our operations in the net; in past tests we have been unable to communicate reliably with the western U.S.A. Additional details on the network, HF radio and antennas may be found in Appendix 1.

New antennas will be of the same size and height as those currently located on the NGB grounds. In addition, the new locations for these antennas will not be of different elevations than the original antenna locations. As such, the visibility of the new antennas will be the same as they were previously and will not impede the viewsheds of the adjacent historic district as they will be part of the considerable amount of modern construction currently visible from these historic properties on the State Department property, east of the project area. Hence, the NGB's assessment of this action has lead to the determination, under Section 106 of the NHPA and 36 CFR Part 800.4(d)(1), that there will be "no adverse effect to historic properties" by the proposed undertaking to the adjacent Arlington Hall Station Historic District.

Please provide your comments on our determination of "No Adverse Effect on Historic Properties" within 30 days per 36 CFR 800.5(c)(1). To facilitate your review, enclosed is a copy of the completed Virginia Department of Historic Resources Project Review Application Form, copies of our original correspondence regarding this construction project, photographs and map of the project site and locations of the antennas. If you have any questions or require further information, please contact Ms. Kristin Leahy, NGB Cultural Resources Program Manager, at 703-607-7190 or kristin.leahy@us.army.mil.

Encl
as



JEFFREY G. PHILLIPS
COL, NGB
Chief, Environmental
Programs Division

APPENDIX A:

National Guard Bureau High Frequency Antenna Relocation Project

BACKGROUND

Purpose: The Army National Guard High Frequency Operations Net (ARNG HFON) is the primary backup communication network for the National Guard Bureau (Army and Air), support for natural disasters and for supporting mobilizations missions when primary communication networks are not available. This HF antenna system functions as the primary backup system for regional and national citizen protection, defense and help keep the fabric of the American government together during a major crisis.

The Network: The network is divided into ten regions and covers the Continental USA, including Hawaii, Guam, Puerto Rico and Virgin Islands. The regional centers normally communicate with our headquarters stations at the National Guard Bureau site in Arlington, Virginia and relay messages within their region. It is imperative that our organization retain the ability to communicate directly with any State, Territory and the District of Columbia when necessary. This capability includes providing relay and coordination capabilities with a number of other federal agencies for emergency management.

Communication Means: Voice and data as well as special encoding signaling are used as communication methods, while short wave or "High Frequency" radio is used as the medium. This spectrum was the traditional and original military and marine radio communication band that allows both continental and inter-continental communication. Less utilized than in former times, due to growing alternative systems such as the telephone network and satellites, it is still used by many services such as military, civil defense, Red Cross, and high seas maritime operations. As it depends upon the ionosphere to bend or refract signals back to earth, it will still get the message through when these other systems fail or are destroyed by hostile actions. HF radio has been and continues to be a primary method for operational communication traffic to flow between our operational organizations. The spectrum used is typically 2 MHz to 30MHz, with military/governmental channels being interspersed with marine and civilian bands including radio amateurs and broadcasting.

HF Radio Propagation: HF radio utilizes ionospheric characteristics to reflect signals back to earth to achieve medium to long-range communications. As the ionosphere is exposed to more and less solar energy from day to night, its characteristics and strength change, requiring higher and lower frequencies to maintain a link. Also, similar to mirror and a light beam, the angle of radiation must be high for closer in stations and low towards the horizon for further away. Antennas are much longer than the more familiar VHF antennas, but are most often made of thin wire and are so hard to see at any distance. For very long range, a gain antenna is needed for reliable signals similar top a

large TV antenna, as they focus the energy and sensitivity in a desired direction and can extend range without using higher power and electric drain.

Antennas Required by the National Guard Bureau: Due to the simultaneous long, medium and short range links needed to cover the eastern, Midwest and western USA plus the Pacific Islands and the Caribbean, one antenna will not suffice. For the eastern USA and the Midwest, a fairly low wire antenna, a few dozen feet high, will be used. It is made of thin wire, typically green in color, and blends in with a wooded background. The central pole that supports it is not unlike a thin flagpole. It is so hard to see that a white marker cloth strips need to be attached to prevent people walking into it. For the western states and beyond Hawaii and Guam, a type of antenna called log periodic is needed. It has the effect of amplifying signals (both receive and transmit directions) approximately 10 times, due to its focusing effect. These are common throughout the world's military, foreign services and petroleum companies. Examples may be seen on the pentagon, at Andrews AFB and Ft. Meyer, as well as many embassy roofs, particularly overseas. These antennas are made of aluminum tubing and triangular, they are actually larger versions of home TV antennas.

Proposed Antenna Location: Our low wire antenna will be re-located from the southwest to the east building penthouse roof, while the log periodic antenna will be re-located to the northwest side of the east building, generally screen from outside view by trees and our building. The approximate locations are indicated on the plat copy as enclosed. The log periodic antenna is mounted on a tower while the low wire antenna is mounted to a freestanding antenna mount assisted by non-penetrating guide wires. Only the very top of the low wire and periodic antennas are visible from the street level. Our site is fairly remote from Washington D.C. and will not be visible from any historic site (ARNGRC is two miles northwest of Ft Myer) and is well screen by trees and hills, it will not be an eyesore. Visibility is less than Ft Myer is and Defense Information System Headquarters located two miles away in Arlington Virginia. The only neighbors in the immediate proximity are a Masonic Lodge (which is seldom used except once or twice a week at night), three newly constructed homes and the Department of State school building. This antenna is critical to the success of this critical mission and system.

APPENDIX B: Simple Base High Frequencies Antennas

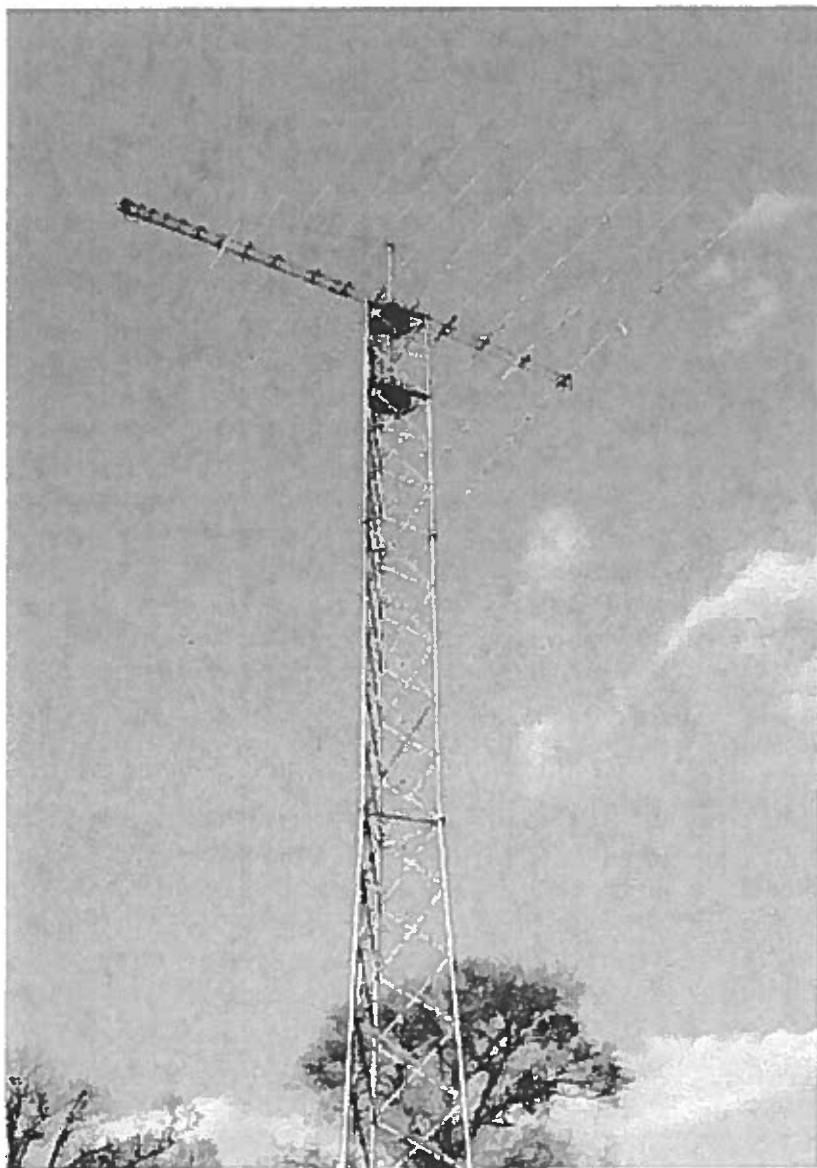


Figure 1. HF Log Periodic Antenna



Figure 2. Front View of ARNGRC - HF Log Periodic and Dipole Antennas

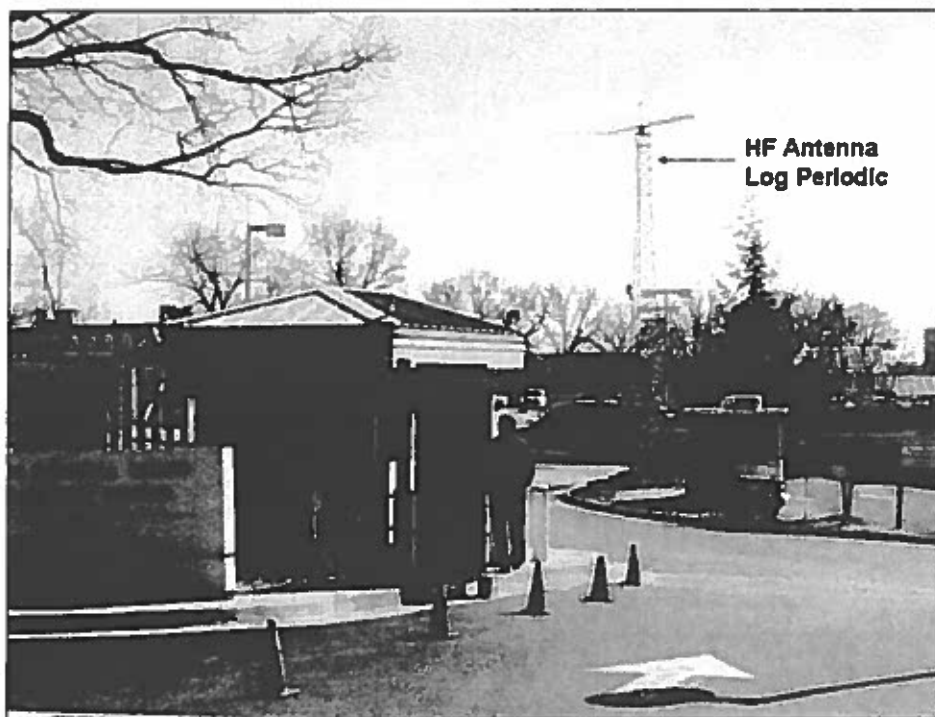


Figure 3. East Gate View of ARNGRC - HF Log Periodic



Figure 4. State Department View of ARNGRC - HF Log Periodic



Figure 5. East Side View (Route 50) Near Three New Homes

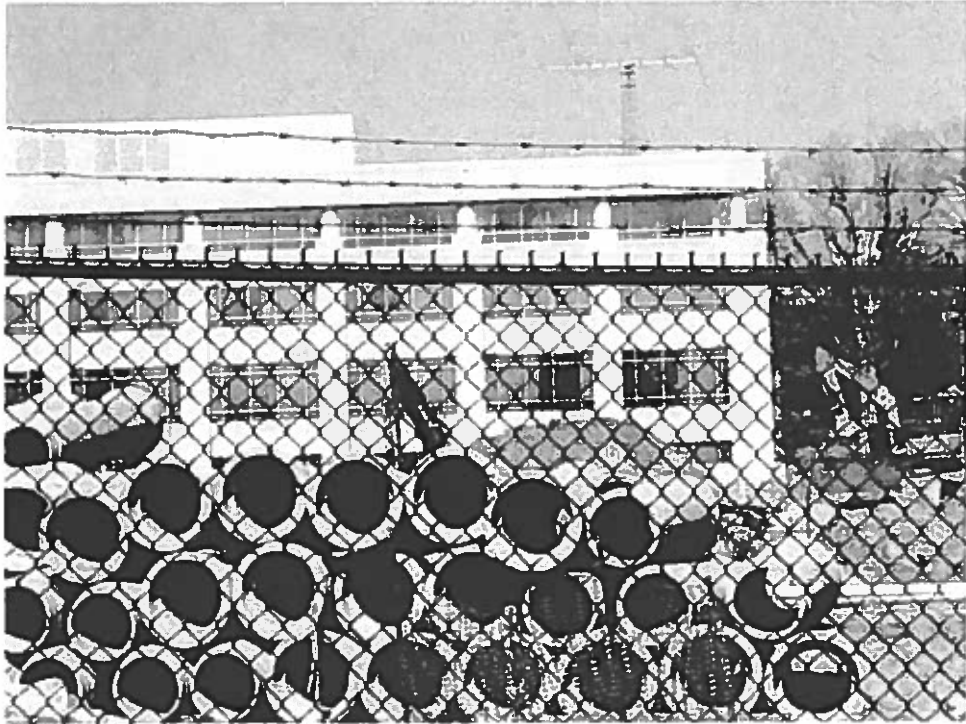


Figure 6. South Side View (State Department's Property Walk Way)

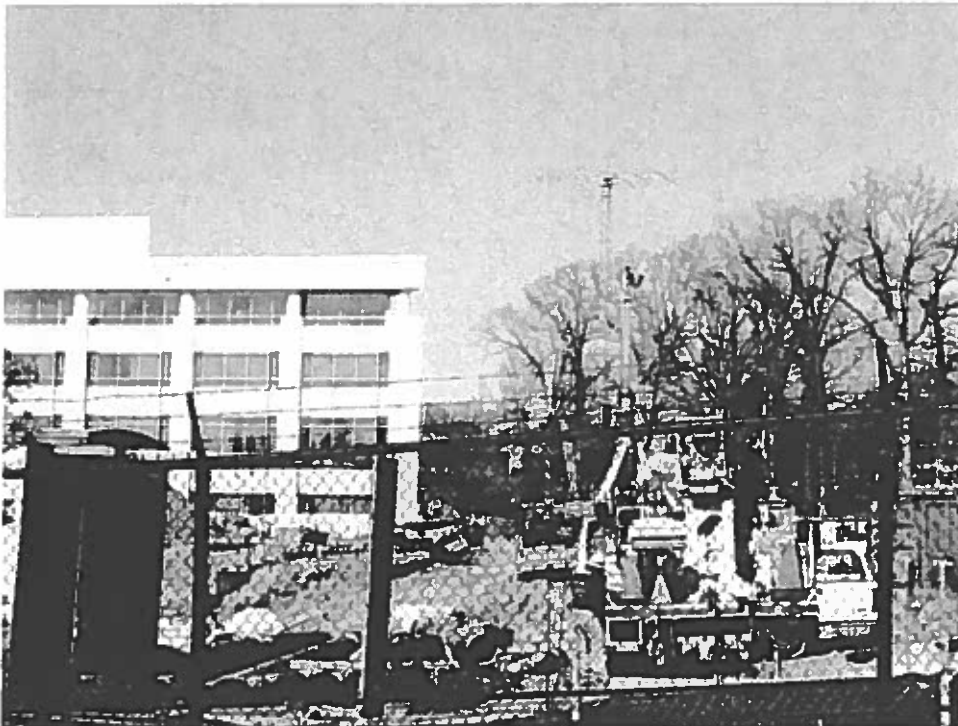


Figure 7. South Side View (State Department's Property Walk Way - Corner)

Figure 7. South Side View (State Department's Property Walk Way - Corner)

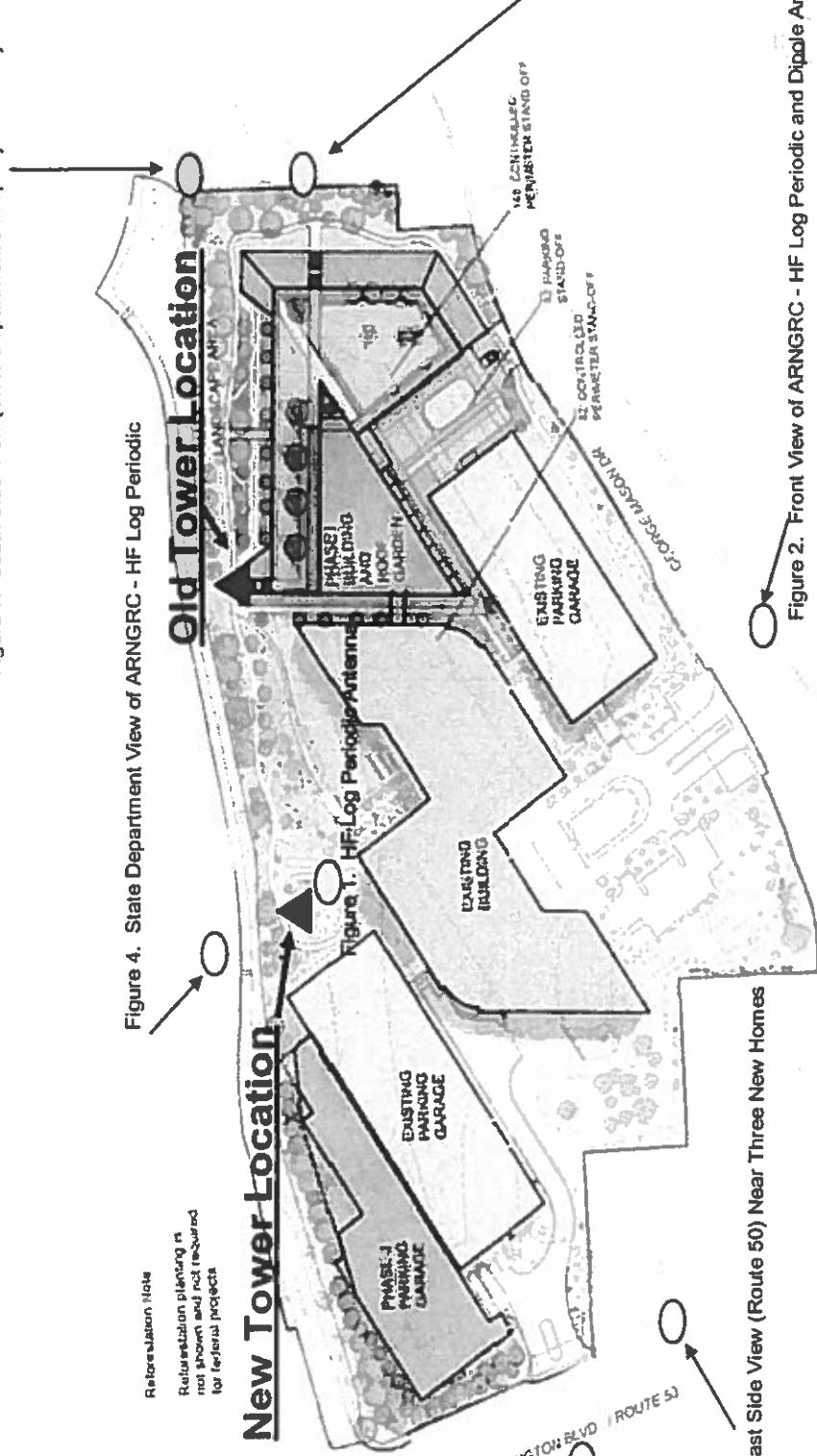


Figure 4. State Department View of ARNGRC - HF Log Periodic

Reforestation Note
Reforestation planting is
not shown and not required
for federal projects

Old Tower Location

New Tower Location

Figure 3. East gate View - HF Log Periodic

Figure 1. HF Log Periodic Antenna

Figure 5. East Side View (Route 50) Near Three New Homes

Figure 2. Front View of ARNGRC - HF Log Periodic and Dipole Antennas



**DEPARTMENTS OF THE ARMY AND THE AIR FORCE
NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON, VA 22204-1382**

30 August, 2007

Chief, Environmental Programs Division

**Ms. Kathleen Kilpatrick, SHPO
Department of Historic Resources
2801 Kensington Avenue
Richmond, VA 23221**

**RE: Proposed Construction of Additional Administration and Parking Facilities at The
Army National Guard Readiness Center, Arlington, Virginia**

Dear Ms. Kilpatrick:

Pursuant to the Base Realignment and Closure Act of 2005, the National Guard Bureau (NGB) proposes to build a supplemental administration facility, encompassing approximately 45,000 square feet, adjacent to the existing Army National Guard Headquarters building known as the Army National Guard Readiness Center (ANGRC), located at 111 South George Mason Drive, Arlington, Virginia. The new facilities will be situated on NGB property that does not currently have existing structures as described below. This letter initiates NGB's consultation process with your office per the National Historic Preservation Act of 1966 Section 106, and the Advisory Council on Historic Preservation's regulations set forth at 36 CFR Part 800 for the proposed undertaking. It also describes NGB's assessment and resulting determination of the potential impacts to historic properties from the proposed undertaking. An Environmental Assessment (EA) is under development for this undertaking and a Draft will be provided for your review as part of the National Environmental Policy Act Public review period.

The proposed undertaking is the construction of the new administration and parking facilities and associated construction preparatory ground work. There is one proposed Area of Potential Effect (APE) which is shown in the map at enclosure 1. The proposed area is the southern portion of the NGB property primarily encompassed by a walking track and currently containing a storm water run off pond. The NGB proposes to build the new administration facility, with additional parking, within proposed area. This is the only available area on NGB property that will hold the size of building proposed. Most construction will be above ground with the maximum depth of excavation for foundations being 35 to 40 feet. Draft Elevations of the proposed facilities are enclosed.

The associated construction preparatory work will include boring up to 15 direct push borings two (2) inches in diameter approximately 14 to 20 feet deep and installation of six (6) monitoring wells. These wells will also be two (2) inches in diameter with a depth of approximately 20 feet. These borings and wells will be used to investigate possible impacts from past petroleum usage on the property and the possible presence of other contaminants related to fill deposited prior to 1994 when the ANGRC was constructed.

The NGB assessed the APE for the undertaking. This assessment included review of the property history, aerial photographs, topographic maps both historic and current, and NEPA Environmental Assessments for previous undertakings on the NGB and Department of State parcels. Historical documents indicate the early use of the land was for farming. In 1927, the Arlington Hall Junior College was built on approximately 90 acres of land that includes the existing NGB property. In 1942, the Army acquired the college property to house a variety of Department of Defense intelligence activities including the Signal Intelligence Services operations. In 1987, the college property was divided and transferred into the current NGB property with the remaining larger parcel going to the State Department pursuant to a Memorandum of Understanding dated October 7, 1987.

During 1988, the Arlington Hall properties were assessed for National Register of Historic Places listing eligibility under a Memorandum of Agreement between the Department of State, the Advisory Council on Historic Preservation, and the Virginia State Historic Preservation Officer. On October 7, 1988, the Arlington Hall Station Historic District was determined eligible under Virginia Department of Historic Resources Number #000-0018. The historic district included 42 buildings including the main administration building, building 1, all of which are located on the Department of State's land parcel. No buildings on the NGB's parcel were determined eligible for listing on the National Register of Historic Places. To negate an adverse effect on the historic district's view shed, the NGB agreed in their Master Plan to clad the ARNGRC's visible exteriors that did not have glass with pre-cast panels simulating a limestone finish. Landscaping along the property line was also agreed to in the master plan to minimize an adverse effect on the historic district's view shed.

During construction of the ANGRC, fill was brought in to level out the property for construction. A minimum of 15 feet of fill was brought in for some areas (Enclosure 2). Non-historic structures were demolished to make way for the ANGRC facility and associated parking garages.


The NGB's review of the APEs for historic properties other than the aforementioned college structures did not yield any prehistoric or historic evidence, such as artifacts or features. Specifically, none were located when the current ANGRC facility was three privately owned houses on the north boundary of the ANGRC property. Also, your office concurred with the State Department's determination of "No Adverse Effect on Historic Properties" for its construction on the State Department land abutting the east

constructed nor more recently in 2006 when excavations occurred for the construction of boundary of the NGB's property. This concurrence is documented in your letter of March 2, 2005 and was based on the State Department's low probability assessment for archaeological resources to be encountered due to previous extensive ground disturbance.

Hence, the NGB's assessment of the APE has lead to the determination that the there has been previous ground disturbance activities in the proposed area to include the addition of fill material up to 15 feet deep. Additionally, the NGB's search revealed no new information about any previously known or unknown historic properties that may have been located on the property at some time in the past. With respect to the Arlington Hall Station Historic District on the Department of State property on the NGB's eastern boundary, it is determined that due to the considerable amount of modern construction currently visible from these historic buildings on the State Department property, east of the project area, and because new construction on the ARNRC property would be consistent in type, size, and design to those buildings already on the property and visible from the historic district, there is no adverse impact to historic properties within the Arlington Hall Station Historic District. Therefore, under Section 106 of the National Historic Preservation Act, and 36 CFR Part 800.4(d)(1)), the NGB has determined that there is "No Adverse Effects on Historic Properties" by the proposed undertaking to construct administration and parking facilities and associated construction preparatory ground work.

Please provide your comments on our determination of "No Adverse Effects on Historic Properties" within 30 days per 36 CFR Part 800.5(c)(1). To facilitate your review, enclosed is a completed Virginia Department of Historic Resources Project Review Application Form. If you have any questions or require further information, please contact Dr. Cheryl L. Huckerby, NGB Cultural Resource Manager at 703.607.7997 or cheryl.huckerby@us.army.mil.

Sincerely,


Jeffrey G. Phillips
Colonel, US Army
Chief, Environmental
Programs Division

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Project Review Application Form

This application must be completed for all projects that will be federally funded, licensed, or permitted, or that are subject to state review. Please allow 30 days from receipt for the review of a project. All information must be completed before review of a project can begin and incomplete forms will be returned for completion.

I. GENERAL PROJECT INFORMATION

1. Has this project been previously reviewed by DHR? YES ☐ NO ☒ DHR File # _____
2. Project Name National Guard Bureau, Arlington Hall Additional East Parking Garage
3. Project Location Arlington Arlington
City Town County
4. Specify Federal and State agencies involved in project (providing funding, assistance, license or permit). Refer to the list of agencies and abbreviations in the instructions.

Lead Federal Agency National Guard Bureau, Army National Guard

Other Federal Agency None

State Agency None

5. Lead Agency Contact Information

Contact Person Colonel Jeffery G. Phillips, Chief Environmental Division

Mailing Address 111 S. George Mason Drive, Arlington, VA 22204-1382

Phone Number 703.607.7964 Fax Number 703.607.8329

Email Address _____

6. Applicant Contact Information

Contact Person Dr. Cheryl L. Huckerby, Cultural Resource Program Manager

Mailing Address 111 S. George Mason Drive, Arlington, VA 22204-1382

Phone Number 703.607.7997 Fax Number 703.607.8329

Email Address cheryl.huckerby@us.army.mil

II. PROJECT LOCATION AND DESCRIPTION

7. USGS Quadrangle Name Bethel United Church of Christ, USGS Alexandria
8. Number of acres included in the project Approximately 2 acres

9. Have any architectural or archaeological surveys of the area been conducted?

YES X
NO

If yes, list author, title, and date of report here. Indicate if a copy is on file at DHR.

Arlington Hall. NPS Determination of Eligibility Notification F.O. 11593, 26Oct1988, on file at DHR.

10. Are any structures 50 years old or older within or adjacent to the project area?

YES X
NO

If yes, give date(s) of construction and provide photographs.

Arlington Hall Historic District on Department of State Property adjacent to Nation Guard Readiness Center. Eligibility Determination above.

11. Does the project involve the rehabilitation, alteration, removal, or demolition of any structure, building, designed site (e.g. park, cemetery), or district that is 50 years or older? If yes, this must be explained fully in the project description.

YES
NO X

12. Does the project involve any ground disturbance (e.g. excavating for footings, installing sewer or water lines or utilities, grading roads, etc.)? If yes, this must be explained fully in the project description.

YES X
NO

13. DESCRIPTION: Attach a complete description of the project. Refer to the instructions for the required information.

To the best of my knowledge, I have accurately described the proposed project and its likely impacts.

Deborah L. Hensley
Signature of applicant/Agent

30 Nov 2007
Date

The following information must be attached to this form:

- Completed DHR Archives search
- USGS map with APE shown
- Complete project description
- Any required photographs and plans

<u> </u> No historic properties affected		<u>X</u> No adverse effect
<u> </u> Additional information is needed in order to complete our review.		
<u> </u> We have previously reviewed this project. A copy of our correspondence is attached.		
Comments: <u>Thank you for allowing DHR to review the design of the proposed Park Grove facility. We anticipate any conflict concerning project is 25 Nov 07. But the facility it will have NAE on historic properties.</u>		
Signature <u>Deborah L. Hensley</u>		Date <u>27 Nov 07</u>
Phone number <u>804 367 2323 ext 44</u>		DHR File # <u>2007-1808</u>
This Space For Department Of Historic Resources Use Only		

MAIL COMPLETED FORM AND ATTACHMENTS TO:

Virginia Department of Historic Resources

Attention: Project Review

2601 Kensington Avenue, Richmond, VA 23221

www.dhr.virginia.gov

From: Holma, Marc (DHR) [Marc.Holma@dhr.virginia.gov]
Sent: Wednesday, May 28, 2008 8:34 AM
To: Huckerby, Cheryl L Dr. CIV NG NGB ARNG
Subject: Draft Design for the Proposed Construction of Additional
Administration and Parking Facilities at the Army National Guard
Readiness Center, Arlington, VA (2007-1308)

Dear Dr. Huckerby:

The Department of Historic Resources (DHR) has received the design of the new building referenced above. In September 2007 our office concurred with the finding of No Adverse Effect to the Arlington Hall Station Historic District. We requested, however, to review the building's design once it was available. After considering the proposed design we reiterate our earlier comment that the project will have No Adverse Effect to the historic district.

Sincerely,

Marc Holma